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W. E. H

Dear

An

Inaugural Essay

on

Hæmoptysis

By

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of

Virginia

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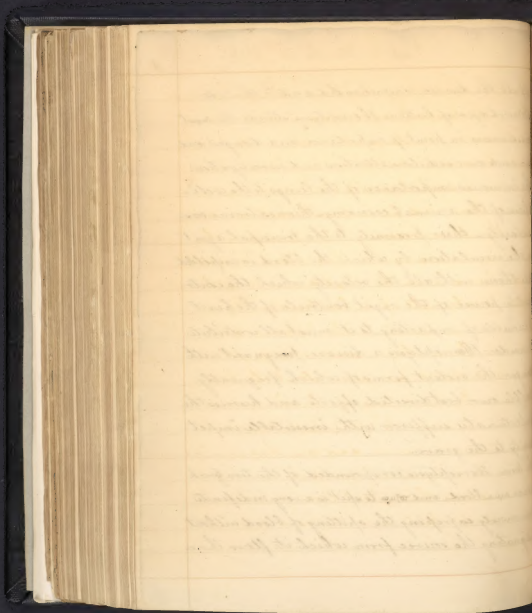
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Of all the diseases comprehended under the order
Hæmorrhagia of the lungs Hæmoptysis stands the most
conspicuous in point of importance and danger and
demands our sedulous attention and investigation.
The immense importance of the lungs to the well-
-fare of the animal economy - their extreme vas-
-cularity - their proximity to the principal agent
in the circulation by which the blood is impelled
into them with all the velocity which the con-
-tractile power of the right ventricle of the heart
is capable of imparting to it must all contribute
to render Hæmoptysis a disease pregnant with
danger the violent forms of which frequently
baffle our best directed efforts and hurried the
unfortunate sufferer with irresistible impet-
-uosity to the grave.

The term Hæmoptysis compounded of the two Greek
words *æma* blood and *τῶπος* to spit is a very indefinite
one, merely expressing the spitting of blood without
designating the source from which it flows. Those



= fore as the hemorrhage may have its origin in
 different parts, such as the lungs, Trachea, fauces,
 and Stomach, it is essentially necessary that we
 should be acquainted with the characteristic
 symptoms of each, to enable us to discriminate
 between them and form correct practical deduc-
 = tions. This we may readily do by attending to the
 existing symptoms and to those which preceded
 the discharge, when the blood originates in the
 fauces, it is brought up by hawking, unattended
 by any of those symptoms which characterize
 pulmonary hemorrhage, such as cough, febrile
 excitement, oppression or pain about the thorax,
 moreover by inspecting the throat we can
 frequently discover the effusion of blood if it
 comes from the fauces, and are thus enabled
 at once to silence all doubt on our part
 and to relieve the patient from much anxiety
 and distress which he would have suffered
 if permitted to remain in uncertainty.

When the hemorrhage has its source in the lungs it is brought up by coughing, is frothy and of a florid colour immediately previous to its appearance a saltish taste is perceptible in the mouth, these in conjunction with the symptoms preceding the discharge unequivocally point out its origin.

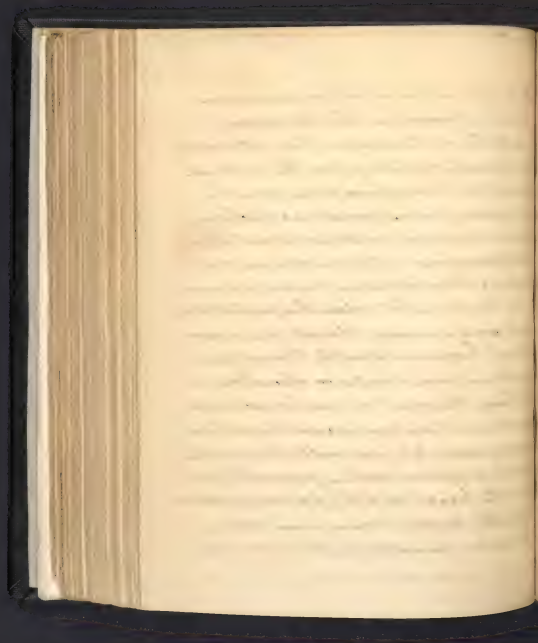
It is no less necessary that a line of distinction should be drawn between Hemoptysis and Hematemesis, and fortunately the diagnostic symptoms are sufficiently palpable to preclude any doubt or mistake on the subject. In Hematemesis the blood is thrown up by vomiting is of a darker colour, grumous, and mixed with the other contents of the stomach.

Antecedent to the discharge there is generally a sense of heat or distension in the gastric region, accompanied with nausea.

The causes of Hemoptysis are those of hemorrhage in general, but there are some which particularly

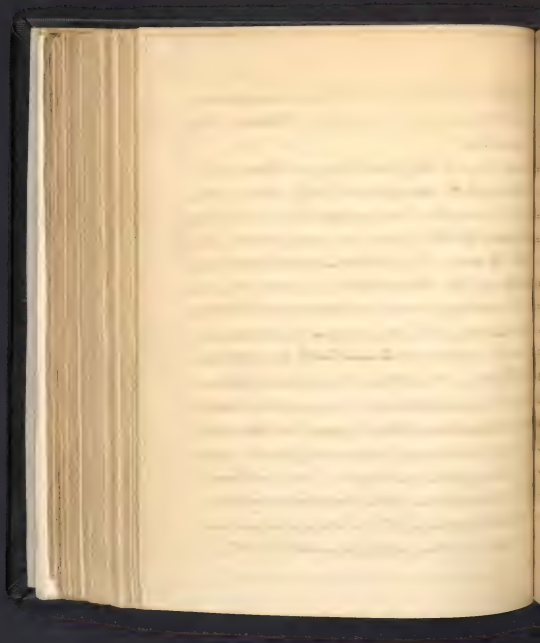
tend to produce Hemoptysis. A predisposition to this disease is frequently implanted in our physical constitution. accordingly we find those most afflicted with it who have narrow contracted chests, long necks, weak, and delicate habit of body. But this predisposition is developed and brought into action by a great diversity of causes, such as violent exercise, especially in lifting heavy weights, paroxysms of rage, bursts of laughter, long and loud speaking, vicissitudes of weather, intemperance or the suppression of any accustomed discharge. There are several species of the disease which arise from different causes and are attended with different degrees of danger, the first is an accidental rupture of a vessel resulting from a blow or wound in the thorax, and here if no consumptive tendency exists the patient generally recovers. The second arises from inflammation of

the lungs, as in Pleurisy or Peripneumonia
and if not excessive, should suppose it
would be rather useful than detrimental
by topically depleting from the inflamed
lungs. The third species arises from the
suppression of some accustomed discharge
as the Menstrual or Hemorrhoidal, this
is not dangerous unless very copious or at-
tacking those labouring under a consum-
ptive diathesis, but when this predisposition
exists every species of Hemoptysis is ex-
ceedingly hazardous. Fourthly Hemoptysis
may arise from abscesses or ulcerations in
the lungs, the effect of un subdued infla-
mation in those organs, and here although
our prognosis is less favourable than in the
preceding species nature frequently repa-
irs the breach and the patient is restored
to health. Fifthly it may arise from
Tubercles associated with a scrofulous.

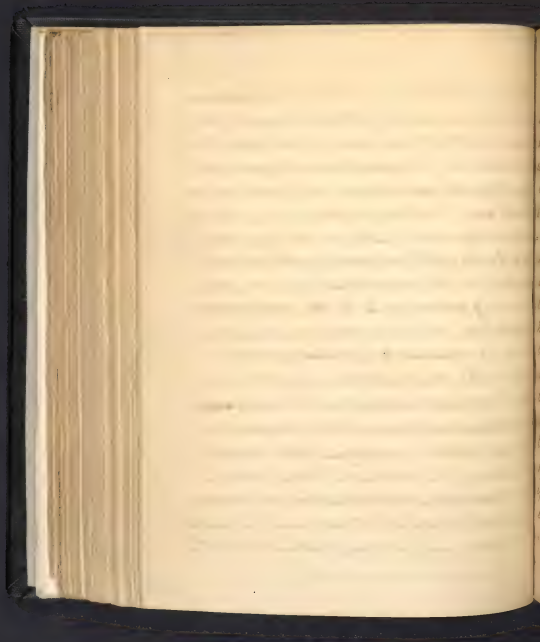


diathesis. this case generally terminates in
that opprobrium of our art *Rhthisis Pul-*
-monalis.

I come now to the pathology of Hemoptysis
but as a full discussion of this part of the
subject would transgress the limits I have
assigned to this paper, my remarks on it
will be very brief. It appears that the con-
dition of the blood vessels is nearly the same
in hemorrhage and inflammation. but in
the one case the distended capillaries
directly unload themselves by an effusion
of blood in the other by a more tedious
process the secretion of coagulable Lymph
Hemorrhage from the lungs has been sup-
posed to occur in four different ways.
1st by a rupture of a vessel called Raxis.
2nd by an erosion of the coats of a vessel
called diabrosis. 3rd by anastomosis or
mere dilatation of the mouths of the

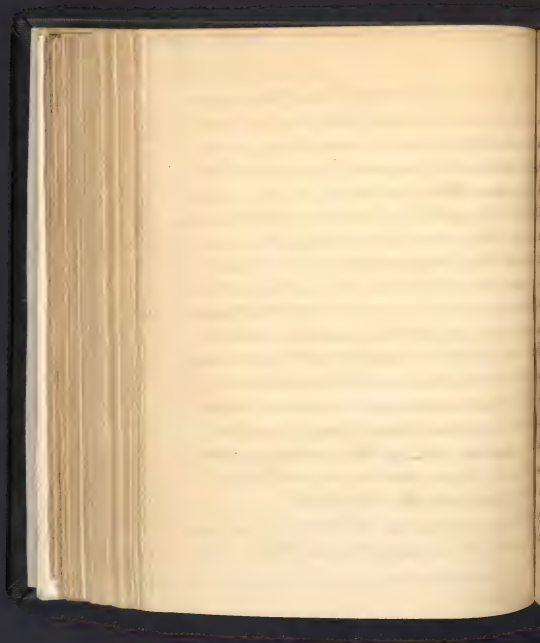


mouths of the extreme vessels. 12th by diapedesis
on the transudation of blood through the
parietes of the bloodvessels. of all these the
= ries that which refers hemorrhage to the
mouths of the acherents is the most ratio=
= nal and best supported, among the ad=
= vocates for which stand the great Bichet
And he has I think incontestably established
the fact by the most conclusive and con=
= vincing experiments. In the first place
he observes. that in no case on dissection
could he discover any traces of erosion
although he employed the nicest care in
washing and macerating the parts, and
in examining them with a microscope
Secondly that in squeezing the mucous
surfaces of the uterus in three women
who died during menstruation. a number
of small drops of blood may be pressed
out manifestly corresponding with the.

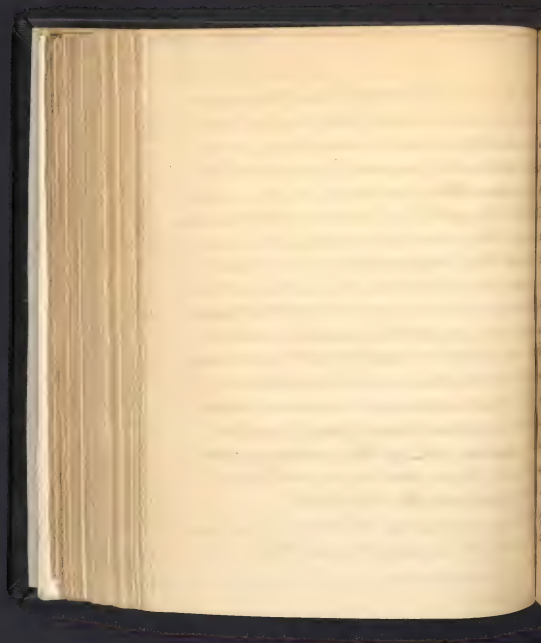


mouths of the exhalents. 3^d that Hemorrhage sometimes takes place from free surfaces in which the blood evidently comes from the exhalents which renders it probable that the same thing occurs in mucous surfaces 4th that if rupture always preceded hemorrhage the internal surface of the womb would be a mere collection of cicatrices as we must suppose one or two ruptures to occur at every accession of the menses. These are a few of the arguments which he brings forward to substantiate his opinion and so conclusive do I esteem them, that they must strike every unbiased mind with conviction. having now finished the consideration of the pathology of this I pass on to the most important and essential part, the treatment.

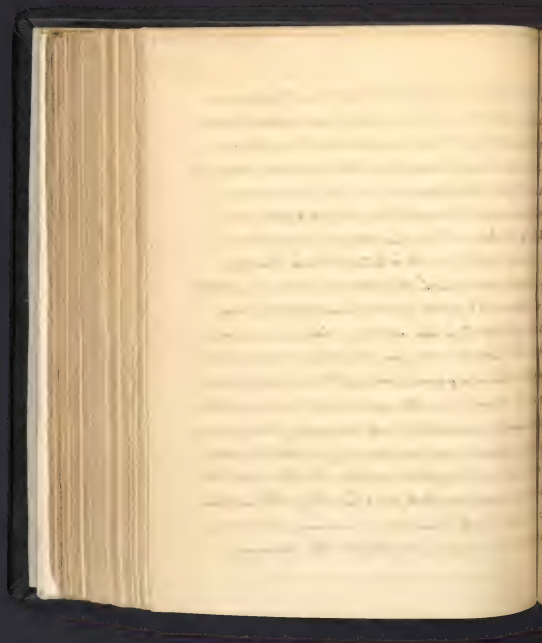
Whoever reflects on the dangerous nature of the violent forms of Hemophyses



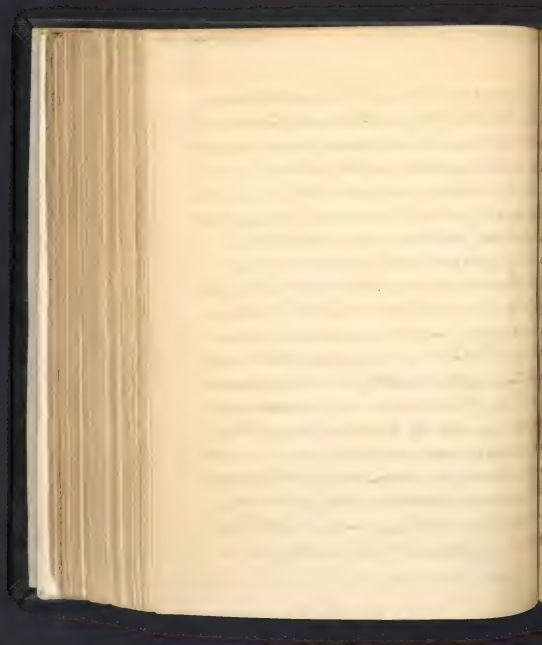
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the necessity for prompt and energetic measures must at once be obvious. An attack is ushered in with a sense of weight or oppression about the chest, dyspnoea, dry hard cough full irregular pulse and tumid countenance, these symptoms call loudly for venesection, and will forever vindicate the propriety of the practice against any aspersion that prejudice may make to the contrary. Among those who object to bloodletting is the celebrated Boerhaave. he asks how the opening a vessel in the arm can possibly check a flow of blood from one which has already been ruptured by an effort of nature my answer is that its efficacy is based upon a principle which we every day apply in our practice, viz the principle of revulsion, he might as well have denied the utility of active purging in



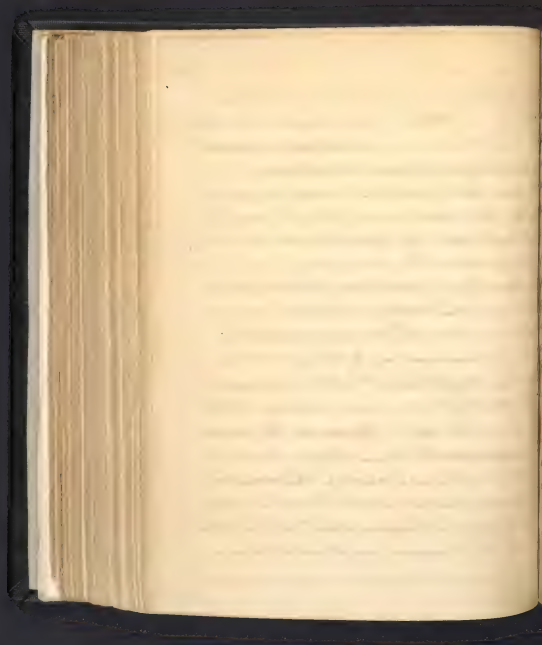
Phrenitis, for they both act in the same way, but to be beneficial in violent cases it must not be used with a sparing hand. I well recollect the excellent remarks of Prof. Chapman on this subject in his lecture on Hemoptysis, his practice in cases where it is essentially necessary to afford relief is to abstract by a large incision as much blood as will completely subdue the force of arterial action. We cannot do less in copious hemorrhages without jeopardizing the life of our patient after bleeding common salt in a dry form in the dose of a tea spoonfull every fifteen or twenty minutes is a remedy of considerable efficacy, as cooperating with the same remedies cold applications to the chest & compits are useful in checking Hemoptysis the cold bath has been recommended in extreme cases but I think the remedy is



a very precarious one. the instantaneous effect of the cold bath would be a recoil of blood from the surface. and a consequent accumulation in the internal organs and it is therefore probable that it would only aggravate the disease it was intended to relieve. although venesection is our principal and most effectual remedy yet there are many others not to be neglected. Among these is the sacch. saturni. this remedy was very much in vogue previous to the time of Sir Geo. Baker who reported unfavourably of it in consequence of which it had sunk into undeserved neglect: until the late Dr Barton threw off the trammels of authority and reinstated it among our remedies in this disease; the mode of administering it is to combine two or three grains with half a grain of opium to be made into a



pill which is to be given every two or
 three hours. Allum is also much used, but
 this like the preceding is entirely inefficient
 in checking profuse hemorrhages, it is
 therefore best adapted to cases originally
 mild. The next remedy I shall mention
 is the digitalis. This from the control which
 it possesses over the circulating powers
 has been highly extolled in Hemoptysis
 but its curative virtues I suspect has been
 greatly overrated. that it does possess the
 power of diminishing arterial action
 every one must admit, but it is equally
 palpable that it is far inferior to the
 Cantharid in this respect. Given in the common
 dose a considerable time elapses before it
 asserts its influence, and if the dose be
 much increased it is apt to excite vomit-
 ing. It follows therefore that in the active
 forms of this disease we should never

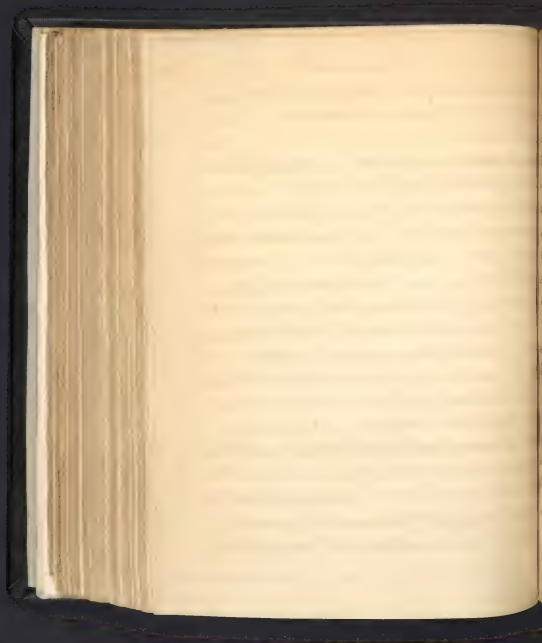


resort to the digitalis in preference to venesection
 or in other words substitute a feeble remedy
 for one exceedingly powerful, but cases do exist
 in which bleeding would be inadmissible, when
 we may with advantage resort to Digitalis. The
 cases to which it is suitable, are such as are accom-
 -panied with a slight discharge, hacking cough,
 pain in the side and breast, a quick and active
 pulse, together with great mobility and weakness
 of the system. exhibited under such circumstances
 so as just to keep the pulse within the natural
 standard, this remedy may be of great benefit.
 Emetics have not been altogether unnoticed in this
 disease. They were introduced into the practice
 by Dr. Bryan Robinson of Dublin, but not mee-
 -ting with a favourable reception, they were
 abandoned, but there can be no doubt that
 vomiting ^{would} sometimes check hemorrhage from
 the lungs the records of medicine contain
 evidence of the fact. Prof^r Chapman in his



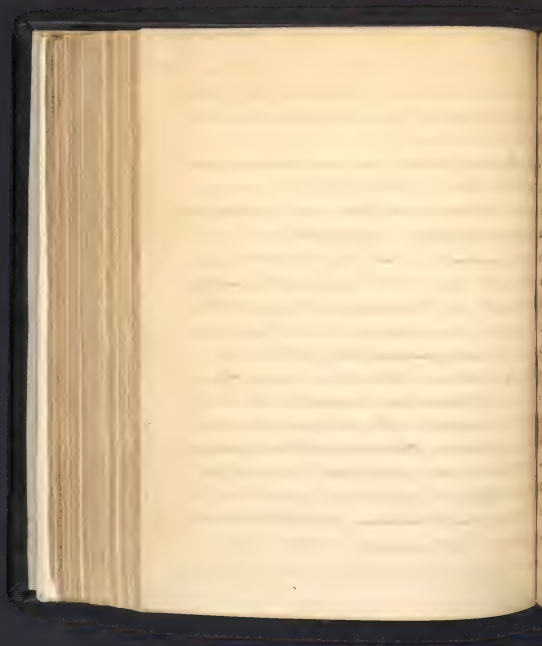
Therapeutic remarks, "I have seen spontaneous vomiting do it, in several instances, and the worst case, which ever came under my notice, was completely suspended by a dose of Digitalis, which puked violently." But the remedy is certainly a precarious one and should never be resorted to except in extreme cases, where milder means have been tried in vain and here I think we might with propriety give an emetic, in preference to leaving our patient to inevitable death without one more effort to arrest the impending blow.

But however precarious emetics are in themselves the same uncertainty does not attend their exhibition when given in nauseating doses. the most useful of this class to effect the purpose in view is the Ipecacuanha. It is to be administered in doses sufficient to create a slight nausea. It is generally given in combination with small doses

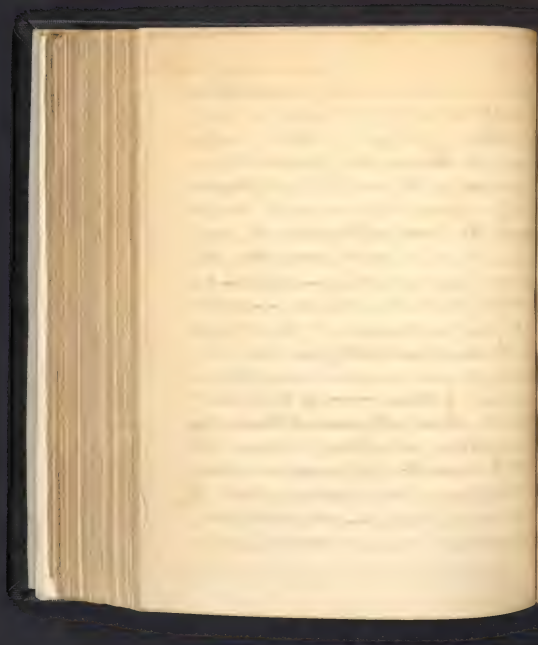


℞ Opium about two grains of the former with half a grain of Opium. which is to be given at stated intervals.

The Mineral Acids have been recommended in Hemoptysis, but I shall pass them over in silence, because we have many articles whose superior efficacy is incontestably established to the exclusion of which, it would be injudicious to resort to the Acids. In the catalogue of remedies in this disease we may add the Narcotics. One article of this class has been noticed in a previous part of this Essay. Scutella, Senbani, Belladonna, and Opium have all been recommended. The last of which I suspect is the only one deserving much attention, this under certain circumstances is an indispensable remedy in Hemoptysis. Its employment is indicated where great Pulmonic irritation exists attended with a cough, and here Opium



is eminently serviceable. Its remedial efficacy is entirely dependant on the power which it possesses of quieting irritation and allaying cough. Having now finished the consideration of the constitutional remedies in Hemoptysis, I will proceed to mention some of the local applications. the most useful of which are the vesicatories; these are very beneficial when much pain and irritation exists; they should be applied to the chest in preference to the extremities for it is an indisputable fact that the efficacy of such remedies is exactly proportioned to their proximity to the part affected. Local after general bloodletting has effected a reduction of arterial action is not to be omitted. But unless we attend to other circumstances all our efforts will be in vain. we should therefore when called to a case of Hemoptysis mind



that the patient should be kept perfectly at rest with his shoulders elevated. The room should be kept cool and well ventilated. Company is to be excluded as much talking has been known to reproduce the discharge. The diet should be mild, consisting chiefly of demulcent drinks, not giving enough to overload the stomach, and his bowels should be kept in a soluble state. By pursuing the course laid down we shall frequently be able to accomplish a cure under the most unpromising circumstances. But unfortunately one attack predisposes to another and here we should be very strict in our injunctions on the patient to avoid all the exciting causes, he should restrict himself to a vegetable diet and milk together with some gentle exercise. He should also, avoid if possible taking cold. But we on our part should consider it as an

imperative duty not merely to rely on the representations of the patient himself, but to examine for ourselves and if any symptoms should present themselves which should lead us to apprehend a return of the hemorrhage the antiphlogistic plan should be more rigidly pursued than ever in obstinate cases we should try the effects of a salivation, but some cases are so inveterate as to refuse to yield to any plan of treatment, under such circumstances we should recommend as the only alternative a change of climate or a sea voyage.

Thus by constantly keeping in view the state of the system, and not permitting our judgement to be warped by preconceived ideas or fanciful theories, we may frequently remove the obstacles which obstruct our patients return to health and have the high gratification of knowing that through our instrumentality one patient at least has been rescued from the grave.

